

REMARKS

Claims 17-20 are pending in the current application. Claims 17-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Otto et al. (U.S.P.N. 4,518,026, hereinafter "Otto") in view of Beitel (U.S.P.N. 4,752,517, hereinafter "Beitel"). Applicants respectfully traverse these rejections and request reconsideration.

Prior to turning to the substance of the rejections, Applicants note that the primary reference currently relied on (Otto) is similar in many regards to a reference relied on previously in the prosecution of this application. In an Office Action mailed on November 28, 2001 claims 17 and 20 were rejected as anticipated by Shaner et al. (USPN 5,445,208, hereinafter "Shaner"), while claims 18 and 19 were rejected as obvious in view of Shaner in combination with another reference. The specific teachings of Shaner and their similarity with Otto's disclosure will be detailed in the subsequent section for the purpose of asserting that, if the rejections predicated on Shaner were removed, then the rejections based on Otto should also be removed.

Claim 17 is allowable:

Independent claim 17 recites, *inter alia*, a sectional door having a plurality of hingedly interconnected panels with at least one of the panels having a plurality of material layers received within a central area of a frame, wherein the layers are movable relative to each other.

The Office Action suggests that claim 17 is obvious in view of Otto in combination with Beitel, asserting that Otto discloses a sectional door 10 with a plurality of panels 12, each panel including a plurality of layers (polystyrene core 50, panels Pi and Po) that are movable relative to one another. The Office Action further states that Otto does not set forth the frame members being formed from aluminum extrusions and the skin layers formed of polyethylene, but points to Beitel as filling this void. However, claim 17 does not recite frame members made from aluminum extrusions nor polyethylene skin layers, so Applicants are confused as to how Beitel can be applied against claim 17 as part of an obviousness rejection. Beitel seems to add nothing to Otto as it relates to claim 17, so Applicants will focus on Otto for purposes of the rejection of claim 17.

As noted above, the Office Action asserts that Otto discloses a sectional door 10 with a plurality of panels 12, each panel including a plurality of layers (polystyrene core 50, panels Pi and Po) that are movable relative to one another. However, a closer examination of Otto shows that “a layer of suitable adhesive material . . . 54 is provided interjacent the opposite sides of the core member 50 and the confronting surfaces of the panels Pi and Po, the adhesive material 54 functioning to positively bond or laminate the panel members Pi and Po and core member 50 into a rigid door section construction” (col. 6, lines 47-53). The adhesive bonding of the material layers taught by Otto provides the structural strength and rigidity desired in each panel section (see, e.g., col. 6, line 47 et seq.). Clearly, if the inner core is adhesively bonded to each of the interior and exterior panels, Pi and Po, respectively, then the layers are not movable relative to each other, as claimed in the present application.

Turning now to the Shaner reference noted above, Shaner lists as an object of the invention, “provid[ing] a panel section having a strong chemical bond between a polyvinylchloride front skin and a polyurethane rigid foam core uniting the panel section to provide structural and thermal improvements . . .” (col. 4, line 25 et seq.). Shaner goes on to describe “a panel section for a garage door having a vinyl skin which is chemically and mechanically bonded to a polyurethane core . . .” (col. 4, lines 33-34). After the final rejection of claims 17-20 based primarily on Shaner, Applicants filed an Appeal Brief, arguing mainly that because “the layers of the Shaner et al. door are bonded together, it cannot fairly be said that Shaner discloses a sectional door panel having a plurality of material layers which are movable relative to each other” (Appeal Brief dated March 4, 2003, pages 5-6). This argument (and the disclosure of Shaner itself) sounds eerily similar to the arguments asserted herein. In response to the Appeal Brief the rejections of claims 17-20 predicated on Shaner were removed.

The fact that a rejection based on a prior art reference that discloses layers of a door that are bonded together (and, as a result, not movable relative to each other) has already been overcome lends tremendous support to the proposition that the nearly identical rejection should be removed here.

The structural deficiencies of the Otto door are much the same as those deficiencies of the Shaner door, deficiencies that have been highlighted in previous communications with the Office. However, to reiterate those deficiencies, Applicants point to the Specification of the

current application where they are discussed in some detail. Specifically identified are structural deficiencies typical of garage doors that have panels formed of different materials that are riveted, glued (as disclosed in Otto), or otherwise fastened together (as disclosed in Shaner), and securely fastened to a frame of the door (page 10, lines 9-15). Because doors of this type are often subjected to relatively extreme temperature ranges and the materials in the door panels have different coefficients of thermal expansion, the materials forming the layers expand and contract at different rates as the door is subjected to temperature changes. This differing expansion or contraction places stress on the rivets, adhesive, or other fasteners and may cause the door to deform or otherwise adversely affect the performance or appearance of the door. So, the invention claimed here addresses a weakness typical of doors like those disclosed in Otto and Shaner.

In sum, the structural differences between the invention claimed in 17 and both Otto and Shaner are substantially the same - primarily that neither teaches a door with layers that are movable relative to each other. The rejection based on Shaner was previously removed. The rejection based on Otto should presently be removed.

Claim 18 is allowable:

Claim 18 depends from claim 17 and further recites that the frame comprises first and second aluminum extrusions joined together by at least one weldment.

The teachings of Otto have been discussed in detail above. The Office Action suggests that Otto does not set forth the frame members being formed of aluminum extrusions and skin layers formed of polyethylene, but it points to Beitel as teaching such frame members and skin layers. The Office Action does not suggest that Beitel does anything to cure the deficiency of Otto related to the layers being movable relative to each other (and appropriately so, as Beitel does not teach layers movable relative to each other). Instead, Beitel discloses a method of interconnecting a panel edge to a structural member (endcap 20) with an adhesive that only bonds to the panel material, paying particular attention to the unique geometry of a groove on the endcap that securely interconnects with the panel edge and adhesive (see generally, Beitel's abstract). Further, the structural member of Beitel is not joined to another structural member via a weldment, as recited in claim 18.

According to MPEP § 2143, to establish a *prima facie* case of obviousness three criteria must be met:

First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, a prior art reference (or references when combined) must teach or suggest all the claim limitations.

Although the rejections set forth here may fall short of the first two requirements, they most clearly fall short of the third requirement. As noted above, neither Otto nor Beitel discloses a sectional door panel having a plurality of layers that are movable relative to each other. Thus, even if one of ordinary skill in the art were to have the insight and motivation to combine the Otto and Beitel references, the subject matter of claim 18 would not result. Therefore, claim 18 is in a condition for immediate allowance.

Claim 19 is allowable:

Similarly, independent claim 19 should be allowed. Turning back again to the prosecution history of this application, Applicants note that in an Office Action mailed on April 25, 2003, claim 19 was objected to as being dependent upon a rejected base claim, but would have been allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. The reason for allowance was that “structural limitations pertaining to the **layers comprising a polystyrene core sandwiched between polyethylene skin layers**, along with the other structural limitations are neither taught nor suggested by the prior art of record” (O.A. of 04/25/03, page 3, paragraph 4). Claim 19 was subsequently rewritten in independent form and includes all of the limitations of the base claim and, as such, should be allowed.

Turning to the substantive argument, claim 19 recites a panel for a sectional door that includes a plurality of material layers received within a central area of a frame, wherein the layers are movable relative to each other, and the frame comprises first and second aluminum extrusions joined by at least one weldment. Claim 19 further requires that the layers comprise a polystyrene core sandwiched between polyethylene skin layers.

Because claim 19 includes all of the elements of claims 17 and 18, and further specifies what materials the layers are made of, the arguments asserted above in connection with claims 17 and 18 apply with equal weight here. As noted above, neither Otto nor Beitel discloses a sectional door panel having a plurality of layers that are movable relative to each

other, nor does either reference disclose a frame made of first and second aluminum extrusions joined by at least one weldment. Thus, even if one of ordinary skill in the art were to have the insight and motivation to combine the Otto and Beitel references, the subject matter of claim 19 would not result, leaving it in a condition for immediate allowance.

Method claim 20 is allowable:

Independent claim 20 recites a method for forming a sectional door that includes providing a frame with a central area, inserting layers of material into the central area to be held in place by the frame such that the layers are movable relative to each other, and coupling a hinge to the frame and another door panel. Essentially, claim 20 recites a method of forming the sectional door claimed as an apparatus in claim 17.

The Office Action suggests that because the structure of the sectional door claimed in 20 is set forth in the combination of Otto and Beitel, the method is obvious and thereby also set forth. However, as detailed above in connection with claim 17, the combination of Otto and Beitel fails to teach a sectional door with a panel that includes multiple layers of materials that are movable with respect to each other. Following the logic of the Office Action, because the combination of Otto and Beitel fails to lead one of ordinary skill in the art to the structure of the door claimed here, it also fails to lead one to the method of forming such a door. Thus, claim 20 is in a condition for immediate allowance.

CONCLUSIONS

Claims 17-20 are in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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